of Zurich University. Scientific men proposed by the scientific council are in the first instance admitted to working places, and also other investigators of any nationality. A branch station is connected with the institute and the observatory well equipped and in the best imaginable situation at a height of 2,500 meters on Muottas-Muraigl near Samaden (Engadine), easily accessible by a funicular railway. The publications issued having their origin in researches supported by the funds of the institute will bear in their title a notice referring thereto. For the equipment of the institute so far 55,000 Swiss francs are available (wherein the value of the instruments of the observatory valuated at 80,000 Swiss francs is not comprised), and the budgets of the first year amount to 57,000 Swiss francs.

On January 3 to 5, 1924, a belated modest inauguration took place, in which the Federal, cantonal, and communal authorities, representatives of the universities of Zurich, Basel, Bern, and of the scientific council composed of professors of the Swiss universities and of physicians, took an active part.

A METEOROLOGIST AT SEA

Dr. C. F. Brooks, associate professor of meteorology and climatology at Clark University, Worcester, Mass., recently made a voyage to the West Indies for the threefold purpose of (1) observing winter weather and its effects on the people, (2) obtaining a series of comparative surface water temperature and weather observations, and (3) determining the best method of making sea surface temperature observations. A report of the investigation will appear in a subsequent issue of the MONTHLY WEATHER REVIEW.

During the last stage of the return voyage, when the vessel on which Doctor Brooks was a passenger, the *Empress of Britain*, was proceeding from Bermuda to New York, a storm of considerable proportions was encountered. Doctor Brooks has prepared the following account of this storm, which is of special interest as coming from a meteorologist rather than a seaman. —Ed.

SOME NOTES ON THE WEATHER, MARCH 21-23, 1924, BERMUDA TO NEW YORK

By C. F. BROOKS

The weather on the 21st at Bermuda was very rainy; heavy showers of rain occurred, especially at about 10 a. m. and 1 to 2 p. m. The first shower marked the arrival of much warmer, moister air, and the second one came just before a very great increase in wind velocity, accompanying a shift in direction from SE. to SW. For about an hour around sunset the sky was clear. Then, however, low clouds formed as the wind shifted to WSW. A line of clouds marked with moderate to brisk showers passed over at about 8:40 p. m. at the time the wind shifted from WSW to W. Thereafter, the sky was partly cloudy with alto-cumulus and strato-cumulus, the wind increasing all the time. Shortly before midnight the sky was practically clear. During the night, however, there was more cloudiness and some showers. Shortly before 6 a. m., the 22d, there were ragged clouds at two or three levels, with patches of greenish blue sky here and there, and with a number of showers visible in different directions. The clouds thickened and at 8 presented a rather solid looking wall across the northwestern sky. At 8:40 the rain front of the main wind-shift line reached us, and three-quarters of an hour later the wind shifted suddenly from a fresh westerly gale to a fresh north-northeasterly one. The pressure began to rise rapidly from its low point of about 29.15 inches, maintained since 2 a. m. In the latter part of the morning the atmospheric pressure in my stateroom was varying up and down as much as 0.14 of an inch with the movement of the ship. This appears to have been a combination of the change in altitude with the passing waves, and also the relative compression in the ventilator as the ship rolled from side to side.

The sky remained continuously cloudy with strato-cumulus from which occasional showers fell till about noon when the sun began to shine now and then. During the early afternoon, though the strato-cumulus clouds looked very heavy, it was not possible to tell whether there were any light showers or not. There was an unceasing rain of salt spray over the ship all the time, with occasional falls of considerable masses of water. Later, as the temperature of the water rose, as we approached the center of the Gulf Stream, the sea became rougher and showers general. At the time of the highest water temperature (71) shortly after 6 p. m. the sea was roughest, the propellers of our ship coming out with practically every wave, and the cloud cover was denser and apparently more rainy. Immediately we passed from water at 71 into water of 54 at 7:30 p. m., however, the sea quieted considerably, and the sky partly cleared. The gale continued, however, for some hours more. Before sunrise the next morning the weather was clear and quiet, though there was still a moderate ground swell to give us a suggestion of the storm we had just run out of.

THE MOVEMENT OF THE CYCLONE OF MARCH 8, 1924, ACROSS TEXAS

551.515 (764)

ALFRED J. HENRY, Meteorologist

[Weather Bureau, Washington, April 17, 1924]

The type of pressure distribution shown in Figure 1 is one of particular interest to forecasters of the United States Weather Bureau; interesting because there is often a distinct hiatus in the path of cyclones that pass from the high plateau of New Mexico to the plains of Texas, and consequently a certain degree of uncertainty as to their future course and development.

It is a rather remarkable fact that extratropical cyclones in winter occasionally advance from the Pacific about north latitude 45° to 50° southeastward directly to Texas or the lower Mississippi Valley without apparently losing any kinetic energy. The rapidity of movement leads to the inference that friction with the exceedingly rugged topography of the path followed is absent and further that the bottom portion of the whirl is cut off as it crosses the mountains. In some way not clearly understood, the middle and top parts of the whirl conserve their original energy until they arrive in the region where warm moist currents are found in the levels next to the surface. So soon as that region is reached connection with the surface is again completed and the storm pursues its normal course with unabated energy.

In this particular case (see fig. 1[1]) the level of the barometer in the center of the cyclone is rather low and

[1] For the path of the cyclone here illustrated see track No. IV of chart II, this REVIEW.